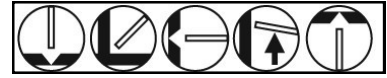


Pipemaster[®] 70



AWS E7010-P1 (E4910-P1)
EN ISO 2560-A-E 42 3 C21

WELDING POSITIONS:



FEATURES:

- Quick-starting
- All-position
- Excellent vertical down
- Excellent arc stability
- Superior arc drive
- Excellent wash-in
- Light slag

BENEFITS:

- Easy arc striking and increased welding efficiency
- Welds in flat, horizontal, vertical and overhead positions
- Faster travel speeds
- Welding accuracy and efficiency
- Excellent penetration
- Maximizes fusion of joints
- Quick and easy cleaning of weld bead

APPLICATIONS:

- Drill platforms
- Pipeline welding using downhill travel
- Storage tanks
- Welding of high-yield pipe steels
- Shipbuilding

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

RECOMMENDED WELDING TECHNIQUES:

- GENERAL:** Electrode positive, work negative (DCEP)
ARC LENGTH: Average length (1/8" to 1/4")
FLAT: Stay ahead of puddle and use slight whipping motion
VERTICAL-UP: Slight whipping or weaving technique
VERTICAL-DOWN: Use higher amperage and faster travel, staying ahead of puddle
OVERHEAD: Use similar technique as for vertical-up, multi-pass for build-up
PIPE: Use downhill travel

STORAGE: Dry at room temperature.

RECONDITIONING: Not recommended

TYPICAL WELD METAL PROPERTIES* (Chem Pad):

| Weld Metal Analysis (%) | | AWS Spec (max) |
|-------------------------|-------|----------------|
| Carbon (C) | 0.15 | 0.20 |
| Manganese (Mn) | 0.54 | 1.20 |
| Phosphorus (P) | 0.01 | 0.03 |
| Sulphur (S) | 0.01 | 0.03 |
| Silicon (Si) | 0.14 | 0.60 |
| Chromium (Cr) | 0.02 | 0.30 |
| Vanadium (V) | 0.01 | 0.10 |
| Nickel (Ni) | 0.72 | 1.00 |
| Molybdenum (Mo) | <0.01 | 0.50 |

TYPICAL MECHANICAL PROPERTIES* (As Welded):

| | | AWS Spec (min) |
|--------------------|----------------------|----------------|
| Tensile Strength | 83,000 psi (570 MPa) | 70,000 psi |
| Yield Strength | 69,000 psi (475 MPa) | 60,000 psi |
| Elongation % in 2" | 25% | 22% |

TYPICAL CHARPY V-NOTCH IMPACT VALUES* (As Welded):

| | | AWS Spec (min) |
|-----------------------|-----------------------|----------------|
| Avg. at -20°F (-29°C) | 57 ft•lbs (78 Joules) | 20 ft•lbs |

NOTE: Pipemaster 70 is a low-alloy cellulosic electrode. Preheat, interpass and post-heating temperatures between 325°F and 375°F should be employed if ambient temperatures are below 32°F (0°C).

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brothers LLC expressly disclaims any liability incurred from any reliance thereon. Typical data are those obtained when welded and tested in accordance with the AWS A5.5 specification. Other tests and procedures may produce different results. No data is to be construed as a recommendation for any welding condition or technique not controlled by Hobart Brothers LLC.

Pipemaster® 70

| Diameter | | Type of Power | Minimum Amps | Optimum* Amps | Maximum Amps |
|----------|-----|---------------|--------------|---------------|--------------|
| Inches | mm | | | | |
| 1/8 | 3.2 | DCEP | 70 | 110 | 140 |
| 5/32 | 4.0 | DCEP | 80 | 160 | 190 |
| 3/16 | 4.8 | DCEP | 120 | 190 | 230 |

*For out of position welding, reduce amperages shown by 15%.

TYPICAL DEPOSITION DATA (at optimum):

| Diameter | | Type of Power | Amps | Volts | Deposition Rate lbs/hr | Deposition Efficiency*% |
|----------|-----|---------------|------|-------|------------------------|-------------------------|
| Inches | mm | | | | | |
| 1/8 | 3.2 | DCEP | 110 | 26-28 | 2.19 | 69.9 |
| 5/32 | 4.0 | DCEP | 140 | 26-28 | 2.68 | 69.2 |
| 3/16 | 4.8 | DCEP | 180 | 26-28 | 3.86 | 72.5 |

*Allowance made for 2" stub loss included.

- **Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of steel being welded.**

STANDARD DIAMETERS AND PACKAGES: For a complete list of diameters and packaging, please contact Hobart Brothers at (800) 424-1543, or (937) 332-5188 for International Customer Service.

| Diameter | | Length | | 50-lb Can |
|----------|-----|--------|-----|-------------|
| Inches | mm | Inches | mm | |
| 1/8 | 3.2 | 14 | 355 | S116644-035 |
| 5/32 | 4.0 | 14 | 355 | S116651-035 |
| 3/16 | 4.8 | 14 | 355 | S116658-035 |

CONFORMANCES AND APPROVALS:

- **AWS A5.5**, E7010-P1, ASME SFA 5.5, F-3, A-1, E7010-P1
- **ABS** E7010-P1

TECHNICAL QUESTIONS? For technical support of Hobart Filler Metals products, contact the Applications Engineering department by phone toll-free at 1-800-532-2618 or by e-mail at Applications.Engineering@hobartbrothers.com

CAUTION:

Consumers should be thoroughly familiar with the safety precautions on the warning label posted in each shipment and in the American National Standard Z49.1, "Safety in Welding and Cutting," published by the American Welding Society, 8669 NW 36th St., Miami, FL 33166 (can also be downloaded online at www.aws.org); OSHA Safety and Health Standards 29 CFR 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210

Safety Data Sheets on any Hobart Brothers LLC product may be obtained from Hobart Customer Service or at www.hobartbrothers.com.

Because Hobart Brothers LLC is constantly improving products, Hobart reserves the right to change design and/or specifications without notice.

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Revision Date: 210420 (Replaces 131001)

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